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EXAMINER

KENDALL, CHUCK O

ART UNIT PAPER NUMBER

2122

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/478,624

Applicant(s)

STAMMERS ET AL.

Examiner

Chuck Kendall

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Detailed Action

1. This action is in response to the application filed 08/09/04.
2. Claims 1, 3 – 23, 28 – 40, 43 & 45 have been examined.

Claim objections

3. Claims 14, 15, 33 and 34 contains the trademark/trade name Java. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a virtual machine and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 3, 4 – 13, 15 – 23, 28 – 32, 34 – 40, & 43 – 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parthasarathy et al. USPN 6,347,398 B1 in view of Chatterji USPN 5,664,195

As per claims 1 & 22, Parthasarathy discloses a system, a method (col. 36), a storage device (col.35), comprising a programmable user processing apparatus for use by a user and at least one storage apparatus, the storage apparatus storing data defining separate components of at least one processing application, wherein the user processing apparatus is configured to fetch data defining components of a processing application to be used by the user from the storage apparatus, and to install the components to enable the application to be used by the user (FIG.4, 68,74).

Parthasarathy doesn't disclose wherein the user processing apparatus is configured to re-fetch data defining one or more of the components in accordance with defined rules and to use the re-fetched data for the application. However, Chatterji does disclose fetching a component upon detecting that the component has not been loaded (3:65 – 4:13, see sent-but-not-completed queue). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy and Chatterji because, being able to refetch or reload the components would make the system more dynamic (Chatterji, 5:48 – 52)

As per claim 3, system according to claim 1, wherein the user processing apparatus is configured to re-fetch data defining one or more of the components in accordance with user instructions and to use the re-fetched data for the application (Parthasarathy, FIG.5, 94, also see 8:20 – 35 for request and download).

As per claim 4, a system according to claim 1, wherein the user processing apparatus is operable to store data defining at least one of the received components after the application is shut down, and to use the stored data when the application is reused by the user (Parthasarathy, 23: table, for reboot and shutdown).

As per claim 5, Chatterji, further discloses a system according to claim 4, wherein the user processing apparatus is operable to store and reuse the data in accordance with defined rules (Chatterji, 4:16 – 35, see predefined rules and also notice system refers back to the incoming-request queue which is loaded from the sent-but-not-completed queue i.e. being reused).

As per claim 6, a system according to claim 1, wherein the data defining each component defines any further components which are needed by the component, and wherein the user processing apparatus is configured to receive user instructions defining an application, to determine a first component needed for the application, to fetch the first component and identify any further components required, to fetch any further components required, and to continue identifying and fetching components until all of the components for the required application have been obtained (Parthasarathy, FIG.6, 98,100,110).

As per claim 7, a system according to claim 6, wherein the user processing apparatus is operable to determine the first component from user instructions (Parthasarathy, FIG.6, 98).

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As per claim 8, a system according to claim 6, wherein the user processing apparatus is operable to determine the first component from a database of components (Parthasarathy, 15:40-45).

As per claims 9, 12 & 40, Parthasarathy discloses all the claimed limitations as applied in claim 1 above. Parthasarathy doesn't explicitly disclose wherein the user processing apparatus is configured to install the components so that the components are isolated from each other and to permit operational interaction between the components in accordance with defined interaction rules. However, Chatterji does disclose permitting the installation of multiple drivers (4: 64 – 67, which examiner interprets as isolated from each other). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy and Chatterji because, it would enable installation of operation code containing other than the modification of the target program (Chatterji, 5: 40 – 43).

As per claim 10, a system according to claim 9 wherein the data defining the components includes interaction rules (Chatterji, 4:16 – 35, see predefined rules for interaction rules).

As per claim 11, a system according to claim 10, wherein the rules defined in the data defining components include rules defining functions within a component which will be made available to other components of a specified type (Chatterji, 4:16 – 35, see predefined rules and also notice system refers back to the incoming-request queue which is loaded from the sent-but-not-completed queue i.e. being reused).

As per claim 13, a system according to claim 12, wherein the user processing apparatus is configured to route each request from a component for access to a resource to a security manager, the security manager being operable to determine whether to permit the access in accordance with pre-stored rules (Parthasarathy, FIG.3, 62, see verification module).

As per claims 15 & 34, a system according to claim 14, wherein the user processing apparatus is configured to load each component into the java virtual machine using different class loader (see FIG. 4, FIG.5 and FIG.6 for component loader and class loader).

As per claim 16, a system according to claim 1, wherein the user processing apparatus is configured to provide threads to run each received component, and is further configured to manage the threads such that a component can not change a thread other than one under which it is running (Parthasarathy, 5:38, 6:10 – 20).

As per claim 17, a system according to claim 1, wherein the user processing apparatus is configured to provide threads to run each received component, and is further configured to manage the threads to prevent a component setting the priority of a thread above a predetermined level (Parthasarathy, 6:10 – 20).

As per claim 18, a system according to claim 17, wherein the user processing apparatus is configured to set the predetermined level in dependence upon the priority of the threads for running its control functions to ensure that a component cannot override a control function (Parthasarathy, 6:1 – 10, for priority, see order).

As per claim 19, a system according to claim 1, wherein the user processing apparatus is configured to test received data defining a component to determine whether the component is from a given supplier (Parthasarathy, FIG.3, see verification module).

As per claim 20, a system according to claim 1, wherein the user processing apparatus is configured to test received data defining a component to determine whether the data defining the component has been changed since it was provided by the supplier (Parthasarathy, FIG.3, see verification module, also FIG.5, 86).

As per claim 21, a system according claim 1, wherein the user processing apparatus is operable to use a given component in a plurality of applications (Parthasarathy, FIG.3, 60,19:5 –15).

As per claim 23, a storage apparatus for use in a system according to claim 1, comprising memory storing data defining at least one component of a processing application to be transmitted to a programmable user processing apparatus (Parthasarathy, FIG. 1, 32).

As per claim 43, programmable processing apparatus for use in a system according to claim 1, comprising: means for downloading data defining a plurality of separate components of a processing application from one or more external apparatus when the programmable processing apparatus is connected to the external apparatus (Parthasarathy, 8:25 – 35); and

means for installing the received components to enable the application to be used a user (Parthasarathy, 8:45 – 47).

As per claim 44, a storage apparatus for using a system according to claim 1, comprising memory means storing data defining at least one component of a processing application to be transmitted to a programmable user processing apparatus (Parthasarathy, FIG.7A, 124,122).

As per claim 28, 38 and 45 Parthasarathy disclose a programmable processing apparatus, comprising: a receiver for receiving data defining a plurality of separate components to make up a processing application (Parthasarathy, 19:22 – 25);

a loader for installing the received components to enable the application to be run (Parthasarathy, 19:1-10, see download module). Parthasarathy doesn't explicitly disclose wherein the loader is arranged to install the components such that the components are isolated from each other and so as to permit operational interaction between the components in accordance with defined rules. However, Chatterji does disclose permitting the installation of multiple drivers (4: 64 – 67, which examiner interprets as isolated from each other). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy and Chatterji because, it would enable installation of operation code containing other than the modification of the target program (Chatterji, 5: 40 – 43).

As per claim 29, apparatus to claim 28, wherein the loading is configured to permit operational interaction between the components in accordance with rules defined in received data defining the components (Chatterji, 4:16 – 35, see predefined rules for interaction rules).

As per claim 30, apparatus according to claim 29, wherein the rules defined in the data defining components include rules defining functions within a component which will be made available to other components of a specified type (Parthasarathy, FIG. 6, 98).

As per claim 31, apparatus according to any of claims 28, wherein the loading means is configured to install the data so that the components are isolated from resources of the apparatus, and to permit access by the components to the isolated resources in accordance with defined rules (Parthasarathy, FIG.4, 72).

As per claim 32, apparatus according to claim 31, wherein the load is configured to route each request from a component for access to a resource to a security manager, the security manager being operable to determine whether to permit the access in accordance with pre-stored rules (Parthasarathy, FIG.4, 72).

As per claim 35, apparatus according to claim 28, wherein the receiving means is operable to receive data defining a component from a storage medium (Parthasarathy, FIG.1, 32).

As per claim 36, apparatus according to claim 28, wherein the receiver is operable to receive data defining a component transmitted as a signal from an external apparatus (Parthasarathy, FIG.5, 94).

As per claim 37, Apparatus according to claim 28 wherein the loading means is operable to use a given component in a plurality of applications (Parthasarathy, FIG.3, 60,19:5 – 15).

As per claim 39, a storage device storing instructions for causing a programmable processing apparatus to become configured as an apparatus as claimed in claim 28 (Parthasarathy, FIG.4, 68).

6. Claims 14 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parthasarathy et al. USPN 6,347,398 B1 in view of Chatterji USPN 5,664,195 as applied in claims 9 and 28, and further in view of Dale et al. USPN 6,049,664.

As per claims 14, & 33 Parthasarathy as modified by Chatterji discloses all the claimed limitations as applied in claims 9, & 28 above. The combination of Parthasarathy and Chatterji doesn't explicitly disclose wherein the user processing apparatus is provided with a Java virtual machine and is arranged to load each component into the Java virtual machine. However, Dale does disclose in an analogous art dynamically downloading components as needed (5: 10 –13) in a java environment including a JVM. (5:22 – 27, also see 6: 22 – 27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Parthasarathy and Chatterji with Dale because, it would enable needed JVM components to be loaded dynamically.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 3 – 23, 28 – 40, 43 & 45 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Kendall whose telephone number is 571-2723698. The examiner can normally be reached on 10:00 am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on 571-2723695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WEI Y. ZHEN
PRIMARY EXAMINER



CK